FILED
04/27/21
04:59 PM

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Consider Streamlining Interconnection of Distributed Energy Resources and Improvements to Rule 21.	Rulemaking 17-07-007 (Filed July 13, 2017)

COMMENTS OF TESLA, INC. REGARDING PROPOSED DECISION ADDRESSING REMAINING PHASE I ISSUES

Andy Schwartz
Senior Managing Policy Advisor
Tesla, Inc.
901 Page Avenue
Fremont CA, 94538
Telephone: (510) 410-0882
E-mail: anschwartz@tesla.com

Dated: April 27, 2021

TABLE OF CONTENTS

TABLE OF AUTHORITIES

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Consider Streamlining Interconnection of Distributed Energy Resources and Improvements to Rule 21.	Rulemaking 17-07-007 (Filed July 13, 2017)

COMMENTS OF TESLA, INC. REGARDING PROPOSED DECISION ADDRESSING REMAINING PHASE I ISSUES

Pursuant Section 14.3 of the Rules of Practice and Procedure, Tesla, Inc. (Tesla) respectfully submits these Opening Comments on the Proposed Decision issued on April 7, 2021, which addresses the remaining issues included in Phase I of the this proceeding, including various issues addressed as part of Working Group 4 as well as Issues 11 and 13. Attachment A, appended to these comments, provides suggested edits and additions to the Findings of Fact, Conclusions of Law and Ordering Paragraphs to reflect our recommended changes.

I. INTRODUCTION

As a participant in the Rule 21 Working Group process, Tesla is gratified to see those efforts bearing fruit in the form of a number of substantive revisions to Rule 21, as reflected in the Proposed Decision. This Proposed Decision caps off multiple years of work and stakeholder engagement and, like the other Decisions that preceded it, will result in a more streamlined and practical body of regulation governing the interconnection process. Tesla is highly supportive many of the Proposed Decision's determinations and is particularly appreciative of the adoption of a notification-only pilot program. While we have a number of recommended refinements to the Proposed Decision at it relates to this item, we

want to first and foremost thank the Commission for giving this proposal due consideration and for embracing many of the key elements we put forward in a proposal over a year ago. The context within which this approach is being piloted is noteworthy and underscores the critical importance of innovation, not only in technology, but also process-innovation as the state grapples with huge challenges. California is once again bracing for a fire season that appears increasingly likely to be incredibly difficult. It is not unreasonable to anticipate extensive use of Public Safety Power Shutoffs to mitigate fire risk, nor is it unreasonable to envision that actual fires may result in widespread outages. In the face of this, we believe urgent action is absolutely warranted to facilitate the ability of customers to deploy solutions like solar-plus-storage systems that can provide robust back-up power in a critical time of need, and in a manner that is not just consistent with, but advances, the State's clean energy goals. A notification-only process for small, non- exporting systems represents a hugely beneficial evolution of the interconnection process, recognizing the limited impact these systems have on the grid and the importance of expanding and accelerating customer access to these solutions.

In terms of specific refinements to the pilot program the Proposed Decision adopts, Tesla recommends the following:

- The scope of systems eligible to utilize the notification-only process should be expanded to include any non-exporting, inverter-based system under 30 kVA rather than only applying to non-exporting storage systems.
- Systems that utilize the notification-only process should be exempt from application fees or be subject to reduced fees.
- The Decision should require submission of the notification package to the utilities within 30 days of a system passing final permit inspection.
- The package of materials to be submitted as part of the notification-only process should remove attestation requirements directed at customers.

- The proposed level of auditing appears excessive and should be scaled back to 10% of systems that utilize the notification-only process.

In addition to these items Tesla also requests the following modification to the Proposed Decision:

- The assessment of additional interconnection issues that may merit formal consideration in a CPUC docket should be conducted on an annual basis.

II. OVERVIEW OF TESLA

Tesla's mission is to accelerate the world's transition to sustainable energy. In the service of this mission, Tesla has dedicated itself to electrifying transportation through the manufacture and sale of advanced electric vehicles as well as key clean energy technologies, including battery storage and solar photovoltaic systems. By electrifying the transportation sector and decarbonizing electricity production, substantial progress can be made in addressing climate change and the serious threat it poses, recognizing the significant share of greenhouse gas emissions that are directly attributable to the transportation and energy sectors. To date, Tesla has delivered over 1.5 million electric vehicles worldwide and has provided 6.7 gigawatt-hour (GWh) of stationary battery capacity and deployed 3.9 gigawatts (GW) of solar.

III. DISCUSSION

A. The scope of systems eligible to utilize the notification-only process should be expanded to include any non-exporting, inverter-based system under 30 kVA.

As drafted, the Proposed Decision limits eligibility to utilize the notification-only process to storage systems. Limiting access in this manner is arbitrary insofar as other inverter-based systems are equally capable of meeting the other, and more salient eligibility requirements. For example, a new solar-plus-storage system with an aggregate capacity of 30 kVA or less can utilize power control systems to prevent export in the same manner as a standalone storage system or a storage system that is being retrofit to an existing solar system. The relevant factors that would determine if a system will have material grid impacts and would potentially fail any of the otherwise applicable Rule 21 screens are the size of the system and whether or not that system exports power over the point of common coupling. As these are

the relevant considerations, there does not appear to be a reason why the ability to utilize the notification-only process should be limited exclusively to storage systems, provided all the other eligibility criteria are met. Indeed, such an approach runs afoul of the Commission's longstanding approach of implementing policies in a technology-neutral manner.

From a practical standpoint, expanding the scope per this recommendation would also increase the positive impacts this policy change will have in facilitating customer access to clean energy back-up systems in advance of this year's fire season. As proposed, the notification-only process would not be available to customers that are seeking to deploy a combined non-exporting solar plus storage system, even if they are willing to abide by the other requirements on which the Proposed Decision conditions its use. This cuts out a very large cohort of customers whose interests in obtaining robust back-up power are just as legitimate as those of customers that are either retrofitting a storage system to an existing solar system, or those that are interested in deploying standalone storage.

B. Systems utilizing the notification-only process should be exempt from interconnection application fees, or subject to reduced fees.

One of the immediate benefits that Tesla envisioned a notification-only process providing customers is reduced application fees. It seems somewhat axiomatic that if a customer is no longer going through the interconnection application process, then any costs associated with that process would no longer be incurred by the utilities and the associated fee that would otherwise be assessed to recover those costs no longer applicable. However, the Proposed Decision indicates that these fees would continue to apply, stating, "We underscore that projects interconnecting through the notification-only process, during this pilot, shall comply with all other requirements of Rule 21, *including the interconnection fee for non-studies* and consumer protections."[1] [emphasis added] While we understand that the pilot process adopted by the Proposed Decision may result in some set-up and processing costs, we do not think it is reasonable to continue to compel customers to pay the existing application fee. Because this is a new, and by

[1] Proposed Decision p. 12

definition more streamlined approach, customers should either be outright exempt from those fees altogether, or to the extent there are concerns that material costs will be incurred, subject to a fee that is grounded in the actual costs the IOUs are likely face. One approach to address this would be to direct the IOUs to submit a Tier 2 Advice Letter in which they propose a notification-only processing fee supported by workpapers that indicate the various set up activities, ongoing tasks and associated costs that would be required to implement this process.

Tesla is particularly concerned about the fees that would continue to apply to standalone storage projects, which currently are required to pay $800 in interconnection application fees, despite no clear justification in terms of actual costs incurred to process these applications. Notably, the current application fees assessed on NEM systems, including those that include a paired storage system, are significantly lower than $800 despite the fact that these systems do typically export and thus would presumably present a greater chance of materially impacting the grid.[2] The disconnect between the fees these projects are charged and actual costs incurred by the utilities will only grow under a notification-only process. Many of these projects would be eligible for the notification-only process, but under the terms of the Proposed Decision, would see no relief from these high and arbitrary fees. At a minimum, customers utilizing the notification-only process for standalone storage projects should pay no more in application fees than those customers who are pairing their storage system with onsite solar.

Tesla notes that these unjustified fees appear to impact a significant and disproportionate number of Residential Equity and Equity Resiliency projects funded by the Self Generation Incentive Program (SGIP). Based on the SGIP real time statewide report (as of April 19, 2021), of the Residential Equity Resiliency and Residential Equity projects submitted into the program (excluding waitlisted and canceled projects), 1,151, or more than 13%, are listed as not paired with renewables and would therefore

[2] Pursuant to D.16-01-044, under NEM 2.0, the NEM applications for systems interconnecting in the service territories of PG&E, SCE and SDG&E are $145, $75, and $132, respectively

likely be subject to the $800 application fee.[3] Notably, for projects applying to SGIP via the general market Small Residential storage program, only 352 are listed as not being paired with renewables, representing only 1.4% of projects. This strongly suggests that this fee is disproportionately impacting projects serving the most vulnerable customers in the state. These results make intuitive sense – low income households have less means to afford clean energy technologies unless they are largely or fully subsidized and they are also more likely to live in housing that may be unable to host a solar system, due to structural issues or spatial constraints. As a result, more of these households would presumably move forward with a standalone storage project to the degree that investment is largely if not fully subsidized by SGIP, while forgoing solar, as compared to wealthier households. Even if the application fees are covered by the SGIP incentives, it means that a non-trivial amount of funding in the program that would otherwise be available to enable more households to deploy energy storage systems and enhance their resiliency is going toward paying for those an application fee that, again, has never been justified on the basis of actual costs incurred by the IOUs. To the degree these costs are not covered by SGIP, its impacts appear to be regressive, hamstringing the ability of low-income households to adopt clean energy technologies. By allowing projects that utilize the notification-only process to be exempt from application fees altogether or to be subject to fees that more reasonably reflect costs incurred, the Commission can largely address this inequity and/or reduce the amount of the per project incentives being paid in SGIP, freeing up more funding for other customers.

C. The Decision should require submission of the notification package to the utilities within 30 days of system passing final permit inspection.

The Proposed Decision appears silent on when the notification package described in Section 3.3.3 would need to be submitted to the IOUs. To avoid any unilateral determinations that needs to be litigated via the Advice Letter or other process, Tesla asks that this issue be resolved here. Tesla recommends requiring developers to submit the notification package within 30 days of a notification-only project

[3] This assessment assumes that if a system is listed as paired with renewables in the SGIP statewide report, that paired system is likely a solar system and NEM eligible. In these instances, the storage system is treated as an addition or enhancement to the NEM system and would be assessed the applicable NEM application fee.

passing its final permit inspection. Issuance of the final approved permit provides an objective and documented date from which to start counting and 30 days and provides a reasonable timeframe within which to collect the necessary attestations and submit those to the utility while also giving the utilities sufficiently timely notice that a system has been deployed.

D. The package of materials to be submitted as part of the notification-only process should remove attestation requirements directed at customers.

Given the highly technical nature of the eligibility requirements for using the notification-only process, and the additional administrative burden any customer attestations create for customers, developers and the utilities, Tesla encourages the Commission to eliminate the customer attestation requirements to the greatest extent reasonable. We are highly skeptical that many, if any, customers utilizing the notification-only process will understand what they are attesting to and so we question the reasonableness of, for example, requiring customers to attest that the system meets each of the eligibility criteria. Similarly, Tesla is skeptical that customers will understand the implications of the utilities potentially requiring changes to some of the inverter settings to address voltage effects. Tesla does strongly support accountability for project developers utilizing the notification-only process and believes that responsibility for ensuring systems meet eligibility requirements should fall on them, not end-use customers.

E. The proposed level of auditing appears excessive and should be scaled back to 10% of systems that utilize the notification-only process and the IOUs should be directed to detail the scope of activities or requirements an audit may entail.

The Proposed Decision adopts an auditing framework to ensure that systems deployed pursuant to the notification-only process are adhering to the eligibility requirements. This is conceptually consistent with Tesla's proposal but represents a four-fold increase in the level of auditing that Tesla recommended. Although Tesla continues to support the use of system auditing as an important element of a notification-only process, we are concerned that the level auditing the PD would authorize is excessive and cuts against some of the streamlining and cost savings benefits this process is intended to provide. Depending on the nature of the audit, it could result in significant administrative and other burdens on customers and

developers. Requiring this of one in five projects does not seem necessary to get a reasonable sample of systems necessary to assess a developer's compliance and consistency with the notification-only requirements. Additionally, Tesla recommends that Proposed Decision be modified to direct the IOUs to submit a Tier 2 Advice Letter within 15 days of the effective date of the final Decision in which they detail what an audit might consist of. This is important to ensure that the auditing process does not unduly burden customers or developers and to also ensure there is clear visibility into what an audit will entail so as to be able to reasonably manage the expectation of customers that utilize the notification-only process.

As a middle ground, Tesla suggest this be scaled back to 10%. Another alternative would be to start with a relatively high auditing level initially, and then stepping that down as a developer demonstrates their ability to abide by the requirements. For example, the auditing level could be set initially at 20% for the first 100 projects a developer deploys pursuant to the notification-only process, stepping down to 10% after 200 projects and then 5% upon successful completion of 300 notification-only projects and thereafter.

F. The assessment of additional interconnection issues that may merit formal consideration in a CPUC docket should be conducted on an annual basis.

The Proposed Decision acknowledges the value that a formal rulemaking provides for consideration of future interconnection issues, and, as part of that recognition, would establish a triennial review process pursuant to which Energy Division would "entertain informal comments from the service list on new interconnection issues and revisions to interconnection policies".[4] Tesla is concerned that this is too slow a cadence, especially when one considers the amount of time experience has shown it takes for proposed reforms to be litigated and incorporated into Rule 21. Under the Proposed Decision's triennial process, any new issues would not be scoped into a formal proceeding until sometime in 2023 and, if history is our guide, it would likely take at least 2 more years for any identified issues and reforms to make their way

[4] Proposed Decision, p. 52

through the process and be fully codified into Rule 21, in 2025. That does not seem reasonable, particularly given the critical role interconnection plays and the fact that despite notable progress in improving upon Rule 21, it continues to impose significant costs on customers and developers. Tesla recommends the assessment of whether there are any issues sufficient to merit formal consideration through a formal proceeding be undertaken every 12 months.

IV. CONCLUSION

As with the other Decisions that preceded this one, this Proposed Decision takes important steps to improve Rule 21 by embracing valuable process improvements, including through its adoption of a notification-only pilot program. In these times of unprecedented and unrelenting challenges, the Commission is appropriately taking steps to reduce the friction the interconnection process engenders, which we believe will pay dividends in terms of advancing the transition to a clean, sustainable and more resilient future. We appreciate the opportunity to submit these comments and encourage the Commission to modify the Proposed Decision consistent with our recommendations as discussed herein.

Respectfully submitted,

/s/ Andy Schwartz
Andy Schwartz
Managing Policy Advisor
Tesla, Inc.
901 Page Avenue
Fremont CA, 94538
Telephone: (510) 410-0882
E-mail: anschwartz@tesla.com

April 27, 2021

ATTACHMENT A

CHANGES TO FINDINGS OF FACT, CONCLUSIONS OF LAW AND ORDERING PARAGRAPHS
(underlined text indicates additions, strikethrough text indicates deletions)

Proposed Changes to Findings of Fact (FOF):

11. Submission of the five documents in the notification package within 30 days of a project has passed its final permit inspection by the relevant Authority Having Jurisdiction appropriately addresses safety concerns.

12. Increasing the allowable audits from five to ~~20~~ 10 percent of projects during the trial period will indicate to the utilities and the Commission whether the engineering study that occurs during the current Interconnection application process is necessary for this explicit subset of projects.

New FOF to be added after FOF 12

13. Audits may reduce some of the streamlining and cost reduction benefits that a notification-only process provides to the degree they may involve additional coordination with customers as well as utility and project developer employee resources.

14. Systems deployed pursuant to a notification-only process do not result in the IOUs incurring costs associated with processing and reviewing applications.

15. The costs currently collected to cover the costs of processing and reviewing interconnection applications are not calibrated to the costs associated with projects deployed pursuant to the notification-only process.

Proposed Changes to Conclusions of Law (COL):

New COL to be added after COL 2:

3. Projects deployed pursuant to the notification-only process should be exempt from interconnection application and study fees.

4. The utilities should provide additional details regarding the scope of activities they may undertake as part of their audits of projects deployed pursuant to the notification-only process.

Proposed Changes to Ordering Paragraphs (OP)

1. A notification-only Interconnection approach, based on the Tesla Proposal attached as Appendix A, is adopted as modified herein:

   (a) A two-year pilot of the approach shall be conducted, beginning 45 days from the issuance of this decision;

   (b) Eligible projects: shall be non-export inverter-based ~~energy storage~~ systems less than or equal to 30 kilovolt-amps (kVA); shall use a Underwriter Laboratories (UL)-certified Power Control System with an Open Loop response time of two seconds or less and be set to a non-export mode; shall not be located on a networked secondary portion of the utility's grid; shall be operated in a manner that does

not increase a customer's peak load; and shall only be installed by eligible developers, as described below.

(c) Eligible developers must have successfully deployed at least 20 non-export projects that meet the eligibility criteria for the notification-only process using the current interconnection application process; must file an attestation with the utility stating: i) they understand where the utility's secondary network is located and ii) they developer will not use the notification-only process for projects deployed on the secondary network portions of the utility's grid.

(d) Developers ~~and customers~~ shall submit the following documentation as part of the notification package to the utility within 30 days of a project passing its final permit inspection by the relevant Authority Having Jurisdiction: i) Authority Having Jurisdiction Electrical Release; ii) Developer Attestation that a system deployed on a 240 volt service is deployed across the entire 240 volt service; iii) Developer Attestation that if the system is found to be noncompliant, developer will work with the utility and customer to bring system into compliance and will pursue reinstatement of Permit To Operate through the standard Interconnection Application process; iv) Developer ~~and Customer~~ Attestations that the system meets each of the eligibility criteria described above; and v) Developer ~~and Customer~~ Attestations they each recognize and understand the auditing element described below.

(e) The Audit element described in the attached Tesla Proposal is adopted but revised such that ~~20~~ 10 percent of projects in the notification approach may be audited at the utility's discretion. A violation of the established criteria will cause removal of the developer's name from the eligibility list until the developer: i) has successfully deployed an incremental 40 projects that meet the eligibility criteria using the standard interconnection application process and ii) explained to the utility how the developer intends to prevent future violations.

A utility may audit any other projects deployed through the notification-only process by a developer found in violation. Any projects found noncompliant will automatically have the Permit To Operate revoked and the developer will be required to request a new Permit To Operate through the current Interconnection application process.

(f) No later than 30 days from the issuance of this decision, Pacific Gas and Electric Company, San Diego Gas & Electric Company and Southern California Edison Company shall each file a Tier 1 Advice Letter explaining how they implemented the Notification-only approach, as required in Decision 19-03-013.

(g) No later than 15 days from issuance of this decision, Pacific Gas and Electric Company, San Diego Gas & Electric Company and Southern California Edison Company shall each file a Tier 1 Advice Letter modifying Rule 21 to exempt projects using the notification-only process from interconnection application and study fees.

New OP to be added after OP 1:

2. Within 15 days of the effective date of this Decision, the IOUs shall submit a Tier 2 Advice Letter in which they detail the comprehensive set of activities they may undertake to conduct an audit of a project deployed pursuant to the notification-only process and the associated requirements and obligations on customers and project developers.

14. ~~Two years~~ 12 months from the closure of this proceeding, Commission Energy Division ~~is authorized to~~ shall seek informal comments on new interconnection issues and potential revisions to interconnection

policies, from entities listed on this and future interconnection proceeding service lists. The comments shall be used to draft the preliminary scope in an Order Instituting Rulemaking for the successor interconnection rulemaking.